

ABSTRACT OF THE DISCLOSURE

It is an object of the invention to provide a droplet ejection apparatus and a method of detecting and judging a head failure that can detect an ejection failure and carry out appropriate recovery processing according to a cause thereof. The droplet ejection apparatus of the invention includes a plurality of droplet ejection heads, each of the droplet ejection heads including a diaphragm and an actuator which displaces the diaphragm; a driving circuit which drives the actuator of each droplet ejection head; residual vibration detecting means 16 for detecting a residual vibration of the diaphragm displaced by the actuator after the actuator has been driven by the driving circuit; pulse generating means for generating reference pulses; computation means 17 for carrying out a computation for the number of reference pulses generated by the pulse generating means on the basis of the residual vibration of the diaphragm detected by the residual vibration detecting means; time measuring means for measuring a lapsed time since the actuator has been driven by the driving circuit; and head failure judging means 20 for judging a head failure in the droplet ejection heads on the basis of the computation result of the computation means 17 and the lapsed time measured by the time measuring means.